Protecting Your Workers During Hot Days
Melissa O’Rourke, Farm & Agribusiness Management Specialist

Farm producers and their employees may be working through the late summer days of extreme heat and humidity – and more of this weather can be expected into September. This is a good time to be conscious of how to protect ourselves and our farm workers during these stressful weather conditions.

Heat can cause illness and sometimes even death. Several years ago, the Occupational Safety and Hazard Administration (OSHA) established a “Heat Illness Prevention Campaign” to raise awareness and provide education and resources for farm employers and employees.

Your farm workers can become overheated in one of two ways – either the heat from the environmental conditions in which they work; or by an individual generating internal heat through physical labor.

Less serious forms of heat-related illness include heat exhaustion, fainting, heat cramps and heat rash. These conditions should be taken seriously as they can quickly progress to heat stroke.

Heat stroke can cause death or permanent disability. Heat stroke occurs when the body becomes unable to control its internal temperature, the body temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down – the body temperature can quickly rise to 106 degrees or higher. Heat stroke symptoms include hot, dry skin or profuse sweating, hallucinations, chills, throbbing headache, high body temperature, confusion or dizziness, and slurred speech. First aid should include the following steps:

- Call 911 and notify the employee’s supervisor.
- Move the worker to a cool, shaded area and fan their body.
- Cool the worker by spraying, sponging or showering them with water, OR soaking their clothes with water.

Farm owners and supervisors should manage employee work conditions where heat stress may occur. Possible considerations include:

- Acclimatize new employees to hot work/weather conditions by exposing them for progressively longer periods.
- When possible, schedule hot jobs for the cooler part of the day – preventative maintenance and repair jobs that occur in hot areas.
- Tasks that require physical exertion during hot conditions should either be scheduled during the cooler part of the day – or provide more frequent than usual rest and cool off periods.
- Assigning extra employees to reduce the workload may also help.
- Provide workers with rest periods in cool or shaded areas, and provide cool water or liquids to drink.
- Where enclosed areas are not air-conditioned, provide adequate fans and ventilation to assure air movement.
- Encourage employees to consume sufficient liquids so they do not become thirsty.
- Encourage employees to wear light, loose-fitting breathable clothing.
- Where protective clothing or personal protective equipment is necessary, additional monitoring is required as this can increase the risk of heat stress.
- Monitor workers who may have additional heat stress risk factors.

Overall, it is important to plan and provide training and awareness to farm supervisors and workers. Topics should include heat stress risks, heat illness prevention, and employee and self-monitoring in hot weather conditions.

OSHA resources:

- Water-Rest-Shade: OSHA’s Campaign to Prevent Heat Illness. www.osha.gov/SLTC/heatillness
Evaluate Your Weed Control Program

Paul Kassel, Crop Specialist

Now is a good time of year to evaluate your weed control program from this year.

Waterhemp continues to be the most difficult weed to manage. Field observations are showing that a high proportion of the waterhemp population is resistant to glyphosate. Certainly waterhemp can be a serious weed in corn but it is often more of a challenge in soybean fields. Therefore, this article will focus on waterhemp control in soybean fields.

A high proportion of soybean acres received a Group 14 herbicide (also known as PPO inhibitors or diphenylether herbicides). Many times the Group 14 herbicide of choice was Flexstar or Flexstar GT. Ultra Blazer or Cobra were the other Group 14 herbicides that were used as a tank mix partner with glyphosate.

Waterhemp is resistant to Group 14 herbicides – although it is at a low level currently. Since the Group 14 herbicides are the only rescue herbicide we have for post-emergence control of waterhemp in soybean, we need to be sure not to overuse this group of herbicides.

Currently many of our soybean fields look good in terms of weed control. However, others are starting to break – as the glyphosate and group 14 herbicide effects on waterhemp are starting to diminish. The success or lack of success in effective waterhemp management in soybean fields will become very visible in the month of August.

Table 1 shows new weed management technology available in the future.

<table>
<thead>
<tr>
<th>Company</th>
<th>Trait/product</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dow Agrosciences</td>
<td>Enlist/Enlist Duo</td>
<td>Trait allows use of 2,4-D in soybean, corn</td>
</tr>
<tr>
<td>Monsanto</td>
<td>Roundup Ready Xtend/Roundup Xtend.</td>
<td>Trait allows the use of dicamba on soybean</td>
</tr>
<tr>
<td>Bayer CropScience</td>
<td>Balance GT</td>
<td>Trait allows the use of isoxaflutole (Balance PRO) in soybean.</td>
</tr>
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</table>

Currently the USDA has deregulated these traits. However, the grain produced from the crop that has these traits has not received full export approval. It may be 2017 before we see widespread availability and use of these products. We will need to use our current portfolio of soybean herbicides to manage waterhemp in soybean fields for at least a couple more years.

It is likely that waterhemp management in the future will require more money, require more field trips, cause us to be less timely with planting and still provide less weed control than we have in the past.

Some of the strategies that can be used are as follows. These strategies are general in nature and are in no particular order of effectiveness.

The Group 3 herbicides (Treflan, Prowl) have good activity on waterhemp. They may require two pass soil incorporation for good performance.

The Group 15 herbicides include Dual, Boundary, Outlook, Warrant and Zidua. These products can be applied post planting but before weed germination. They can be incorporated, also.

The Group 3 and Group 15 herbicides have few weed resistance (including waterhemp) issues. Therefore, we need to make an effort to use these herbicides more for residual control than to overuse the soil applied Group 14 herbicides.

Some farmers have used Group 3 preplant incorporated and Group 15 herbicides pre-emergence to double up on soil activity against waterhemp.

The pre-emergence products have been popular and effective. Products like Anthem, Authority First, Enlite, Fierce, Optill PRO, Prefix, Sonic – and others are combination products that have performed well. They need to be applied after soybean planting but before crop emergence and they need adequate rainfall to move them into the soil profile to provide adequate weed control performance. Since these products include a component that is a Group 14 product, this may increase the likelihood of resistance issues of waterhemp to Group 14 products.

Products like Anthem, Dual, Outlook, and Zidua can be applied after crop emergence for an extended soil residual. They would be added to a glyphosate application.

Spend some time evaluating your soybean herbicide program for this year so you can make plans for successful weed control in 2016.

On the Beef Front

Beth Ellen Doran, Beef Program Specialist

Over the past month, we entered the season of county fairs and 4-H carcass shows. By the end of the season, I will have run data for about a dozen shows involving a couple hundred 4-H’ers and several hundred animals.

I’d like to share some of this year’s insights. My most recent base price for a Low Choice, Yield Grade 3 carcass was $242 per cwt. The average price that the consumer is paying for choice beef is a record $6.11 per pound! Nationally, ground beef (80-89% lean) and boneless ribeye steaks are retailing for $3.99 and $10.03 per pound, respectively.

There are some unusual aspects to this year’s grid prices. Lightweight carcasses have two levels of discount. Carcasses less than 500 pounds have a discount of $55 per cwt; carcasses weighing 500-549 pounds are discounted $15 per cwt. In short, packers do not want small carcasses because they are less efficient to process.

The acceptable range for carcass weight used to be 550-950 pounds. But, with the current shortage of fed animals, the acceptable range has widened and is now 550-1,050 pounds. Carcasses over 1,050 pounds are being discounted $35 per cwt. Large carcasses have
several disadvantages – they slow down the harvest line, they don’t fit the box, and the retail cuts are larger than what most consumers prefer.

The premiums and discounts for yield grade (YG) are interesting. The most recent discounts I had for YG4 and YG5 carcasses were -$8 and -$12 per cwt, respectively. The premiums for YG1 and YG2 carcasses were $6.50 and $2.50 per cwt, respectively. The reason the discounts are greater than the premiums is both labor and product value. It takes more time to trim a fat carcass, and there is less lean product and greater fat trim.

The premiums and discounts for quality grade are also unusual this year. Prime carcasses have a $24 per cwt. premium; Standard carcasses are discounted $20 per cwt. Both the premium for Prime and the discount for Standard carcasses are less than a year ago. More than likely these differences are due to beef industry economics – we have a short supply of live cattle that is affecting carcass prices, premiums and discounts. The premium for Average Choice and High Choice (+$5) is about the same as the discount (-$4) for Select carcasses. Truly, the industry is hunting beef for the dinner table.

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FDA Ruling and Common Swine Industry Audit
Matt Swantek, Swine Program Specialist

Two announcements were recently made: the first was the ruling on the classification of antibiotic usage for livestock. The second was the program for the Common Swine Industry Audit (CSIA). Within each is the requirement of how veterinarians’ roles will increase swine production. This is described as the Veterinarian/Client/Patient relationship or VCPR.

So what caused this change?

FDA Ruling on Feed Grade Antibiotics

In June 2015 the FDA gave their final ruling on how feed grade antibiotics will be classified in livestock feeds. Over-the-counter antibiotics classified as “medically important” for humans and used to treat health challenges in livestock will now require a veterinarian’s prescription. For feed grade antibiotics this will be in the form of a Veterinary Feed Directive (VFD) describing the dosage rate, how long to feed and species.

What the FDA considers “medically important” antibiotics is a long list. It includes products like tetracyclines and penicillin along with classes of drugs more critical to human medicine, such as cephalosporins and fluoroquinolones. No longer will these feed grade products have the label claim of affecting growth or feed efficiency.

The consulting veterinarian will have this responsibility of how the directive will be written. Records must be maintained and the paperwork retained for two years by the veterinarian, the manufacturer of the final diet, and the caretaker of the livestock.

Common Swine Industry Audit

The CSIA is for producers and packers to have a credible and affordable solution mechanism to monitor and improve animal well-being. This includes care, handling, and addressing health challenges or providing preventative methods to alleviate challenges. As in the Pork Quality Assurance (PQA) Plus, the CSIA requires a written VCPR for the production site to demonstrate the producer and veterinarian work together ensuring the health and well-being of the animals on the operation. Verification may be by dated veterinary feed directives, dated medical prescription labels, a dated site visit report from the veterinarian, or a letter from your veterinarian confirming the relationship within the past 12 months.

The VCPR is not a new concept to livestock producers but the changes from over-the-counter to written prescriptions and reclassification of feed-grade antibiotics requiring a VFD are new. The veterinarian will now have to have first-hand knowledge of the production site and those providing the care and well-being of the livestock. Antibiotic inventory (purchases and daily usages) will have to be recorded and reconciled and records kept for at least one year with VFD records retained for two years.

Having a valid VCPR relationship is important for livestock producers to continue to validate to our consumer of the progressive production practices for food safety and animal well-being.
Hotlines Available For All
Iowa Concern (800-447-1985)
Farm On (877-BFC-1999)
Teen Line (800-443-8336)
BETS OFF (800-BETS-OFF) (800-238-7633)

Don’t Miss!
August 18 Cooking with Herbs • Rock Rapids
August 20 Science of Soil & Manure Workshop • Sheldon
August 27 Northwest Iowa Young Farmers Group • Cherokee

Hotlines Available to Iowa Residents Only
Families Answer Line (800-262-3804)
Hortline (515-294-3108)
Iowa Healthy Families (800-369-2229)
PORKLine (800-808-7675)

Solar Energy Conference  September 2, 2015  9:20 a.m. to 3:00 p.m.
Le Mars Convention Center, Upper Level, 251 12th St. SE, Le Mars
Registration Fee: $35 per person includes luncheon, all conference materials and refreshments. Checks must be included with registration and received by August 21. Registration received after the August 21 deadline and at the door is $45. Registration form can be downloaded at www.extension.iastate.edu/plymouth . For more information, call 712-546-7835.